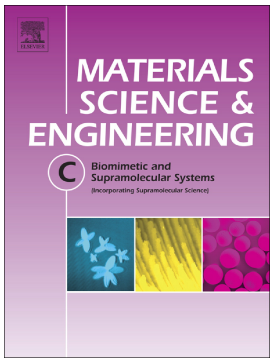


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# Rational design of curcumin loaded multifunctional mesoporous silica nanoparticles to enhance the cytotoxicity for targeted and controlled drug release

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## Abstract

Curcumin has attracted increasing attentions in recent years due to its promising anticancer activities. However, the hydrophobicity of curcumin has limited greatly its efficacy in clinical trials. In this study, folate (FA)-receptor targeting mesoporous silica nanoparticles that promise high loadings of curcumin *via* pH-sensitive Schiff base reactions were constructed and examined for targeted delivery of curcumin. Such nano-delivery system showed significantly improved stability and biocompatibility of